



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/626,568	07/27/2000	Kenneth John Aagaard	CBS 2000-01	9613

718 7590 09/20/2005

REED SMITH LLP

P.O. BOX 488

PITTSBURGH, PA 15230-0488

EXAMINER

YE, LIN

ART UNIT

PAPER NUMBER

2615

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/626,568

Applicant(s)

AAGAARD ET AL.

Examiner

Lin Ye

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 29 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Response to Arguments***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/29/05 has been entered.
2. Applicant's arguments with respect to claims 7-10 filed on 7/29/05 have been considered but are moot in view of the new ground(s) of rejection.
3. Applicant's arguments filed 7/29/05 have been fully considered but they are not persuasive as to claims 1-2, 4-6 and 11-16.

For claim 1, the applicants argue that the Paff reference (U.S. Patent 5,164,827) does not teach or suggest any aspect of the claimed focal length adjustment (See REMARKS page 7); and the Paff reference does not disclose the limitation "a control to select successive additional camera images to effectuate a partial rotation around the object of interest in the display such that size of the object of interest remains generally equal throughout the rotation through successive additional camera images" recited in claim 1, because the examiner's citation provides no support for his argument (See REMARKS page 8).

The examiner disagrees. In the previous examiner Office Action mailed on 1/27/05, the examiner clear states “ e.g., station 11 automatically removes the video of the out-of-range slave camera, or **select and switching** the video of the in range of slave camera for **displaying** on the monitors 11A-D, see Col. 7, lines 40-65” in page 4 the examiner Office Action, lines 2-5; and “e.g., the slave camera SD1-S5 responsive to the information relating to the zooming status of the master camera MD, can then adjust their own zooming states or conditions so that the subject is viewed at approximately **the same magnification** as with the master camera MD, see Col. 8, lines 1-6” in page 3 of the examiner Office Action, lines 19-23. It is well known in the art when adjusting the focal length on the camera, it affects the zoom. The larger the focal length, the higher the amount of zoom. The zoom adjustment can be considered as the focal length adjustment recited in claim 1. The Puff reference also shows in Figure 1, the Master camera and slave cameras (S1-S5) **surround** the object of interest (subject) for providing video images of the object of interest (subject) from **different spatial perspectives**. For those reasons, the Puff reference disclose a control (work station 11) to select successive additional camera images to effectuate a partial rotation around **(spatial perspectives)** the object of interest (subject) in the display (monitors 11A-D) such that size of the object of interest (subject) remains generally equal (the subject is viewed at approximately the **same magnification**) throughout the rotation through successive additional camera images as recited in claim 1.

It also should be noted that the only purpose of examiner to cite the Puff reference at Col. 8, lines 16-22 is additional information for the applicants to review.

***Claim Rejections – 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1, 2, 5, 7-8 and 14-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Paff U.S. Patent 5,164,827.

Referring to claim 1, the Paff reference discloses in Figures 1 and 6, a video imaging system (video surveillance camera system 100, see Col. 3, lines 16-22), the system comprising: a master video camera (MD, see Col. 3, lines 23-25) for producing video images of a moving object of interest (e.g., the master video camera follows a moving Subject (S) as shown in Figure 2, see Col.6, lines 1-2 and Col. 7, lines 40-45); a plurality of additional video cameras (slave cameras SD1-SD5) each positioned at a different location for producing additional video images of the object of interest from different spatial perspectives as shown in Figure 1 (See Col. 4, lines 10-17); a control system (controller 10 and a monitor station 11) for controlling said additional video cameras (SD1-SD5) in response to the master video camera (MD) to follow movement of the object of interest (S) (See Col. 7, lines 37-49), wherein said control system includes a means for controlling the focal length (zooming and focus status) of each additional camera such that size of the moving object of interest is generally equal in each of the master and additional cameras (e.g., the slave camera SD1-S5 responsive to the information relating to the zooming status of the master camera MD, can then adjust their own zooming states or conditions so that the subject is viewed at approximately **the same magnification** as with the master camera MD, see Col. 8, lines 1-6);

Art Unit: 2615

a recording system (monitor station 11) for recording the video images produced by the master camera and the additional cameras; and a user interface (joy sticky 11b and monitors 11A-D) for selecting particular ones of the video images for display, wherein said user interface includes a control (work station 11) to select successive additional camera images to effectuate a partial rotation around (**spatial perspectives**) the object of interest (subject) in the display (monitors 11A-D) such that size of the object of interest (subject) remains generally equal (the subject is viewed at approximately the **same magnification**) throughout the rotation through successive additional camera images as shown in Figures 2 and 4 (e.g., station 11 automatically removes the images of the out-of-range slave camera, or select and switching the images of the in range of the slave cameras have **different spatial perspectives** for displaying on the monitors 11A-D, see Col. 7, lines 40-65, and Col. 8, lines 16-22).

Referring to claim 2, the Paff reference discloses a monitoring unit (monitoring station 11) for transmitting signals representative of an operating status of the master camera (MD) to the control system (controller 10); and a plurality of positioning units (pan, tilt, focus and zoom motors 13-16) for positioning the additional cameras (SD1-SD5) in response to control signals from the control system (See Col. 4, lines 23-35).

Referring to claim 5, the Paff reference discloses wherein the control system (10) comprises: a pan control, a tilt control, a focus control and a frame control (e.g., a master camera captures a frame image that has a coordinate position of subject, the control system 10 calculates the coordinate position of subject S relative to the master camera, see Col. 6, lines 5-10, and Col. 6, lines 39-55) for each of the additional video cameras (See Col. 7, lines

Art Unit: 2615

27-33, Col. 8, lines 1-15); and a computer processor for coordinating operation of the pan control, the tilt control the focus control and the frame control for each additional video camera in response position and focus parameters of the master video camera (See Col. 7, lines 49).

Referring to claim 7, the Paff reference discloses in Figures 1 and 6, a method of generating a video image, said method comprising the steps of: producing a master video image of a moving object (moving subject) of interest (by camera MD, see Col. 3, lines 23-25); producing additional video images of the object of interest from different spatial perspectives as shown in Figure 1 (by slave cameras S1-S5, see Col. 4, lines 10-17); and controlling characteristics of said additional video images in response to the master video image to track the object of interest (e.g., the slave camera SD1-S5 responsive to the information relating to the zooming status of the master camera MD, can then adjust their own zooming states or conditions so that the subject is viewed at approximately **the same magnification** as with the master camera MD, see Col. 8, lines 1-6); wherein the object of interest (subject) is maintained at a generally equivalent size in each of said additional video images by controlling a focal depth (focal length) of a camera associated with each said additional video images, further wherein a user interface (work station 11) is used to select between the master video image and the additional user images (e.g., station 11 automatically removes the images of the out-of-range slave camera, or select and switching the images of the in range of the slave cameras have **different spatial perspectives** for displaying on the monitors 11A-D, see Col. 7, lines 40-65, and Col. 8, lines 16-22).

Art Unit: 2615

Referring to claim 8, the Paff reference discloses storing the master video images and the additional video images in memory (12), and selecting particular ones of the video images for display on monitors (11A-D).

Referring to claim 14, the Paff reference discloses wherein said successive additional camera images displayed during said rotation were all captured at the same time on the monitors (11A-D).

Referring to claim 15, the Paff reference discloses wherein said successive additional camera images displayed during said rotation were captured sequentially in time (e.g., each of images corresponding to the moving of the subject S in the video signals captured by cameras are sequentially displayed in time on the monitors 11A-D).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4, 9 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paff U.S. Patent 5,164,827 in view of McClintock U.S. Patent 5,598,208.



Referring to claim 4, the Paff reference discloses all subject matter as discussed in respected claim 1, except that the Paff reference does not explicitly show the user interface permits the sequential selection of individual frames in the video images.

The McClintock reference discloses in Figures 1-4, a video camera recording system has a plurality of video cameras (22) and a user interface (input controller 70) for selecting particular ones of the video images for display (See Col. 6, lines 18-22); and the user interface permits the sequential selection of individual frames in the video images (See Col. 5, lines 52-65). The McClintock reference is evidence of the state of ordinary skill in the art at the time to see more advantage for the video camera recording system including a user interface so that the viewer has more flexible option for selecting particular ones of the video images and permits the sequential selection of individual frames in the video images for display as he/she wishes review. For that reason, it would have been obvious to one of ordinary skill in the art at the time to modify the video camera system of Paff for providing a user interface permits the sequential selection of individual frames in the video images as taught by McClintock.

Referring to claim 9, the Paff and McClintock references disclose all subject matter as discussed with respect to same comment as with claims 7 and 4.

Referring to claim 11, the Paff and McClintock references disclose all subject matter as discussed with respect to same comment as with claims 1 and 4.

Referring to claim 12, the Paff and McClintock references disclose all subject matter as discussed with respect to same comment as with claims 1 and 4, and the Paff reference

Art Unit: 2615

discloses displaying another one of the plurality of video images (e.g., any of monitors 11A-D can be selected to display another one of the plurality of video images).

Referring to claim 13, the Paff and McClintock references disclose all subject matter as discussed with respect to same comment as with claims 1 and 4.

8. Claims 6 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Paff U.S. Patent 5,164,827 in view of Hayashi et al. U.S. Patent 6,160,544.

Referring to claim 6, the Paff reference discloses all subject matter as discussed in respect claim 1, except that the reference does not explicitly show each of the additional cameras also comprising a microphone for supplying signals representative of audio signals received by the microphones to the control system.

The Hayashi reference discloses in Figure 2, a video camera system comprising a plurality of cameras that have microphones; and video signals (containing audio signals picked up by the microphones) from the cameras that are directly supplied to video distributors (See Col. 4, lines 22-31). The Hayashi reference is evidence the one of ordinary skill in the art at the time to see more advantage for the video camera has a microphone built in so that the user can recording both image and audio signal together and transmitter to remote system for reviewing later. For that reason, it would have been obvious the one of ordinary skill in the art at the time to see each of the additional cameras also comprising a microphone for supplying signals representative of audio signals received by the microphones to the control system disclosed by Paff.

Referring to claim 10, the Paff and McClintock references disclose all subject matter as discussed with respected to same comment as with claims 6 and 7.

9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Paff U.S. Patent 5,164,827 in view of Hayashi et al. U.S. Patent 6,160,544 and Inanaga et al. U.S. Patent 5,590,094.

Referring to claim 16, the Paff and Hayashi references disclose all subject matter as discussed in respected claim 1, except that the references do not explicitly show the control system assigns a delay to each of said sounds signals to account for the relative distance between each microphone and the object of interest.

The Inanaga reference teaches in Figures 1 and 5, a sound controlling and reproducing system assigns a delay (by signal delaying circuit 118, See Col. 10, lines 1-2) to each of the sounds signals to account for the relative distance between each microphone (microphones 11-15) and the object of interest (e.g. the system has a sound location detection apparatus 21-22 based on the relative distance between each microphone and the object of interest to output the position signal, and delay times of audio signals read out by the reading out means in order to produce an actual audio image in accordance with the positron signals (See Col. 2, lines 1-7). The Inanaga reference is evidence the one of ordinary skill in the art at the time to see more advantage for the control system assigns a delay to each of the sounds signals to account for the relative distance between the microphone and the object of interest so that an actual audio image can be reproduced taking such edition and reproduction of sounds form a plurality of sound sources into consideration (See col. 5, lines 30-34). For that reason, it

would have been obvious to the one of ordinary skill in the art at the time to modify the video camera system of Paff for providing the control system to assign a delay to each of the sound signals to account for the relative distance between each microphone and the object of interest to obtain the actual audio image as taught by Inanaga.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lin Ye whose telephone number is (571) 272-7372. The examiner can normally be reached on Mon-Fri 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David L. Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lin Ye  
Examiner  
Art Unit 2615

September 14, 2005